



Credit: Bioversity International/J. Raneri

# Integrating Nutrition in Systems Research

## A compendium of approaches, tools and methods

*This legacy product has been developed from the collaboration among three research centres:*  
Bioversity International,  
Wageningen University and  
AVRDC.

*This legacy product will be released by December 2016. For any further information contact*  
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RESEARCH  
PROGRAM ON  
Integrated Systems  
for the Humid  
Tropics



RESEARCH  
PROGRAM ON  
Agriculture for  
Nutrition  
and Health



**AVRDC**  
The World Vegetable Center



**WAGENINGEN**  
UNIVERSITY & RESEARCH

The nutrition cross-cutting initiative of the CGIAR Research Programme (CRP) Humidtropics commissioned a pilot project to develop methods and tools to guide systems researchers on how to integrate nutrition in to their work. The project started in 2014 and will end in December 2016 with the closing of the Humidtropics CRP. Project components and activities were developed through a close collaboration between Bioversity International, The World Vegetable Center and Wageningen University and received support from the Agriculture for Health and Nutrition CRP. Two field sites were identified where multiple partners were engaged: Western Kenya and North West Vietnam. Two publications have been developed to provide guidance on how to integrate nutrition into systems research, drawing from the experiences and lessons learned in Kenya and Vietnam: a compendium of tools and a technical brief.

### Compendium of tools

Currently, there is little support for researchers wanting to improve nutrition through systems research. This product provides a theoretical framework and a mixed methods approach, consisting of both qualitative and quantitative tools, together with a participatory and community based methods for systems research. It is composed by three different sections, each focusing on a specific topic.

One section describes how to carry out an analysis of farming systems performance and how to explore options for nutrition-sensitive

co-innovation. It provides a model useful to maximize household nutrient production.

Another section of this compendium of tools defines the concepts of food systems and theory of change, and guides practitioners on how to define and structure their theory of change, which is an effective tool for stakeholders to develop solutions to complex social problems and work towards achieving a common goal.

The third and last section of the compendium, drawing directly from the field experiences in Kenya and Vietnam, examines in depth the methodologies and tools necessary to carry out a participatory nutrition-sensitive systems research. Following the steps required to complete a research, from the set up of the data



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collection, to the monitoring and implementation, it presents qualitative and quantitative tools useful for integrating nutrition into systems research.

Among others, there are guidelines on:

- 1) Household questionnaires on nutrition, food security, dietary diversity and local agrobiodiversity;
- 2) Focus group discussion, how to organize them and how to collect information through the use of participatory tools such as seasonal calendars and four cell analysis;
- 3) Market surveys.

## Technical brief

The technical brief outlines and assists users on how to adapt existing information and messaging in nutrition education programs to integrate agrobiodiversity and food systems approaches. This technical brief outlines the steps required to integrate existing national, regional, or county-wide implemented nutrition education

programmes and materials with local agrobiodiverse and seasonal foods.

It provides an overview on how to:

- 1) Identify local nutritious & seasonal foods to fill dietary gaps;
- 2) Identify gaps in existing nutrition education materials;
- 3) Utilize participatory action to help develop meaningful nutrition education material.

Moreover, a series of case studies are available for consultation.

## Utility

To successfully integrate nutrition into systems research, engaging communities and stakeholders in every step of the project is crucial. These two publications will provide useful suggestions on participatory tools and how to carry out a participatory identification of intervention approach. The goal of participation is to give the communities ownership, the ability to express themselves, to learn and

ultimately to empower them through the transfer of skills, abilities, and knowledge. Engaging stakeholders, can lead to partnership building between communities and institutions, serve as a pathway to advance the effectiveness of the research and support scaling-up of interventions.

A nutrition-sensitive participatory systems research allows researchers the opportunity to directly tackle the underlying causes of poor diet quality and help design interventions that can positively impact people's livelihoods.

The target audience for this guide includes actors that want to have an holistic, systematic approach to their agricultural or nutrition research and education material; practitioners who want to design agriculture projects or interventions to be more nutrition sensitive or educators who would like to make nutrition programmes or projects more agriculture sensitive. Other beneficiaries could be agriculture extension officers, NGOs, Ministry of health or department of nutrition officers, nutritionists, community educators, agri-value chain actors, and agriculture system researchers.



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